## American Cyanamid Company

1937 WEST MAIN STREET

## STAMFORD, CONN.



TELEPHONE STAMFORD 4-6141

November 21, 1945

Mr. Joshua Lederberg c/o Prof. F. J. Ryan Department of Zoology Columbia University 116th Street and Morningside Heights New York, N.Y.

Dear Mr. Lederberg:

I was quite interested in your results with the hydroxy uracil. We have noted a rather similar situation with thiouracil. This compound also increases the lag of our strain of E. coli and is reversed with uracil. We have not, however, tested the effect of thymine on this inhibition. You might be interested in comparing this compound with the hydroxy derivative.

As far as the PAB contamination of methionine is concerned, we were able to purify our methionine samples simply by recrystallization. I think this should remove the PAB activity; if it does not, you might try a procedure we have used with a number of materials but never with methionine - that is to extract a solution of the material at about pH 3.5 with several volumes of ether. This removes about 99% of the PAB and should, I believe, remove very little methionine.

We have made a few preliminary attempts at cross-feeding with some of our  $\underline{E}$ .  $\underline{coli}$  mutants and have been unsuccessful thus far. We tested citrulline-arginine and indole-anthranilic acid pairs. With neither of these did we get any evidence of cross-feeding. We want to study this matter further and I think it would be wise for us to work out the problem with the  $\underline{E}$ .  $\underline{coli}$  mutants before attempting cross-feeding between  $\underline{E}$ .  $\underline{coli}$  and Neurospora. I will write you again about the Neurospora transfer.

I hope that you will be able to continue your research and I will try to keep you informed of our progress with some of these mutants.

Sincerely yours,

AMERICAN CYANAMID COMPANY

J. Oliver Lampen

JOL:hab